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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,848	04/12/2004	Kazuhiko Miyata	0756-7278	2083

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EXAMINER	
TRAN, CON P	

ART UNIT	PAPER NUMBER
2614	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/821,848	MIYATA ET AL.	
	Examiner	Art Unit	
	CON P. TRAN	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *;3/5/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2614.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1-42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art Background of the Invention, Figures 2, 3, 4, 5 (hereinafter, "APA") in view of Nakagawa, et al. (hereinafter, "Nakagawa") U.S. Patent 5,650,834.

Regarding **claim 1**, APA teaches an audio signal processing circuit (307, Fig. 3) comprising: flexible circuit board (308, Fig. 3) and a chip capacitor mounted over (PCB 311, Fig. 3); and an equivalent circuit diagram showing a conventional audio signal processing circuit (401, Fig. 4) includes an operational amplifier (402, Fig. 4); external

resistors (403, 404, 405, Fig. 4), external capacitors (406, 407, Fig. 4; see APA page 5, line 12 – page 6, line 12); wherein one terminal of resistor (404, Fig. 4) is connected to the operational amplifier (402, Fig. 4) and the other terminal of the resistor (404, Fig. 4) is connected to a capacitor (407, Fig. 4).

APA does not explicitly disclose: a thin film element formed over an insulating substrate; a thin film resistor formed over the insulating substrate; and a chip capacitor mounted over the insulating substrate; and wherein one terminal of the thin film resistor is connected to the thin film element and the other terminal of the thin film resistor is connected to the chip capacitor.

Nakagawa discloses active-matrix substrate for use in matrix-type display devices such as liquid crystal display devices (col. 1, lines 7-10) including (see Figs. 1, 5A, 5B) thin film transistors arranged in a matrix pattern on the transparent insulative substrate (8, Fig. 5), a plurality of gate lines (11, Fig. 5) each adapted to supply a signal to a gate electrode of each of the thin film transistors (6, Fig. 5), and a thin film resistor provided intermediate between an input terminal of each of the signal lines and shortcircuiting ring; capacitor (3, Fig. 1; see col. 4, lines 33-53; col. 6, lines 38-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the active-matrix substrates taught by Nakagawa with the audio signal processing circuit of APA to obtain the audio signal processing circuit claimed limitations since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately. The motivation is for purpose of

improvements in production yield and product quality, as suggested by Nakagawa in column 3, lines 24-26.

Regarding **claim 2**, APA in view of Nakagawa teaches the audio signal processing circuit according to claim 1, wherein the audio signal processing circuit comprises an input circuit (see APA, page 6, line 25 – page 7 , line 4) and the input circuit comprises thin film resistor (TFT 6, see Nakagawa, Fig. 5) and the chip capacitor (APA, page 5, lines 13-16).

Regarding **claim 3**, APA in view of Nakagawa teaches the audio signal processing circuit according to claim 1, wherein the audio signal processing circuit comprises a feedback circuit and the feedback circuit (feedback of amp. 402, see APA, Fig. 4) comprises thin film resistor (TFT 6, see Nakagawa, Fig. 5) and the chip capacitor (APA, page 5, lines 13-16).

Regarding **claim 4**, APA in view of Nakagawa teaches the audio signal processing circuit according to claim 1, wherein the audio signal processing circuit comprises a smoothing circuit and the smoothing circuit comprises thin film resistor (TFT 6, see Nakagawa, Fig. 5) and the chip capacitor the chip capacitor (APA, page 5, lines 13-16).

Regarding **claim 5**, APA in view of Nakagawa teaches the audio signal processing circuit according to claim 1, wherein P-type impurities are doped in the thin film resistor (contact holes 34, 35, see Nakagawa, Figs. 5a, 5b; col. 9, lines 5-10).

Regarding **claim 6**, APA in view of Nakagawa teaches the audio signal processing circuit according to claim 1, wherein the thin film resistor has a resistance value of 80 kΩ or more (APA, page 5, lines 19-21).

Regarding **claim 7**, APA in view of Nakagawa teaches electronic equipment comprising the audio signal processing circuit according to claim 1, wherein the electronic equipment is one selected from the group consisting of a video camera, a digital camera, a head mounted display, a game machine, a car navigation system, a personal computer and a portable information terminal (APA, page 1, line 13 – page 2 line 4; Nakagawa, col. 1, lines 17-29).

Regarding **claim 8,** this claim has similar limitations as Claim 1. Therefore it is interpreted and rejected under APA in view Nakagawa of for the reasons set forth in the rejection of Claim 1. It is noted APA discloses flexible printed circuit (205, Figs. 2B, 3B, APA, page 3, lines 7-8, lines 20-22).

Regarding **claims 9-14,** these claims have similar limitations as Claims 2-7. Therefore they are interpreted and rejected under APA in view Nakagawa for the reasons set forth in the rejection of Claims 2-7.

Regarding **claim 15,** this claim has similar limitations as Claim 1. Therefore it is interpreted and rejected under APA in view Nakagawa of for the reasons set forth in the rejection of Claim 1. It is noted APA discloses printed circuit board (311, Fig. 3B, APA, page 3, lines 20-24).

Regarding **claims 16-21,** these claims have similar limitations as Claims 2-7. Therefore they are interpreted and rejected under APA in view Nakagawa for the reasons set forth in the rejection of Claims 2-7.

Regarding **claim 22,** this claim has similar limitations as Claim 1. Therefore it is interpreted and rejected under APA in view Nakagawa of for the reasons set forth in the rejection of Claim 1. It is noted the APA further discloses in Fig. 3 the display device has a substrate (309) on which a pixel portion (304, see Fig. 3, Specification page 3, lines 17-18).

Regarding **claims 23-28,** these claims have similar limitations as Claims 2-7. Therefore they are interpreted and rejected under APA in view Nakagawa for the reasons set forth in the rejection of Claims 2-7.

Regarding **claim 29,** this claim has similar limitations as Claim 8. Therefore it is interpreted and rejected under APA in view Nakagawa of for the reasons set forth in the rejection of Claim 8. It is noted the APA further discloses in Fig. 3 the display device has a substrate (309) on which a pixel portion (304, see Fig. 3, Specification page 3, lines 17-18).

Regarding **claims 30-35,** these claims have similar limitations as Claims 9-14. Therefore they are interpreted and rejected under APA in view Nakagawa for the reasons set forth in the rejection of Claims 9-14.

Regarding **claim 36,** this claim has similar limitations as Claim 15. Therefore it is interpreted and rejected under APA in view Nakagawa of for the reasons set forth in the rejection of Claim 15. It is noted the APA further discloses in Fig. 3 the display device has a substrate (309) on which a pixel portion (304, see Fig. 3, Specification page 3, lines 17-18).

Regarding **claims 37-42,** these claims have similar limitations as Claims 16-21. Therefore they are interpreted and rejected under APA in view Nakagawa for the reasons set forth in the rejection of Claims 16-21.

Response to Arguments

4. Applicants' arguments filed July 7, 2008 have been fully considered but they are not persuasive.

It is noted that, as presented above in the Office Action, APA further discloses wherein one terminal of resistor (404, Fig. 4) is connected to the operational amplifier (402, Fig. 4) and the other terminal of the resistor (404, Fig. 4) is connected to a capacitor (407, Fig. 4). In addition, APA discloses in Fig. 3 the display device has a substrate (309) on which a pixel portion (304, see Fig. 3, Specification page 3, lines 17-18).

Regarding Applicants' arguments that Nakagawa discloses thin film resistor 6 is connected to shortcircuiting ring 7, not to the capacitor3, examiner respectfully disagrees since the open-ended claims do not exclude the presence of the shortcircuiting ring 7.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CON P. TRAN whose telephone number is (571)272-7532. The examiner can normally be reached on M - F (08:30 AM - 05:00 PM).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Con P. Tran whose telephone number is (571) 272-7532. The examiner can normally be reached on M - F (8:30 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Vivian C. Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/CPT/
October 19, 2008

/Vivian Chin/

Supervisory Patent Examiner, Art Unit 2615